



Missouri  
Department of  
Natural Resources

KCP&L Greater Missouri Operations Company  
Power Plant Name: Lake Road  
Electric Generation and Emissions in 2011

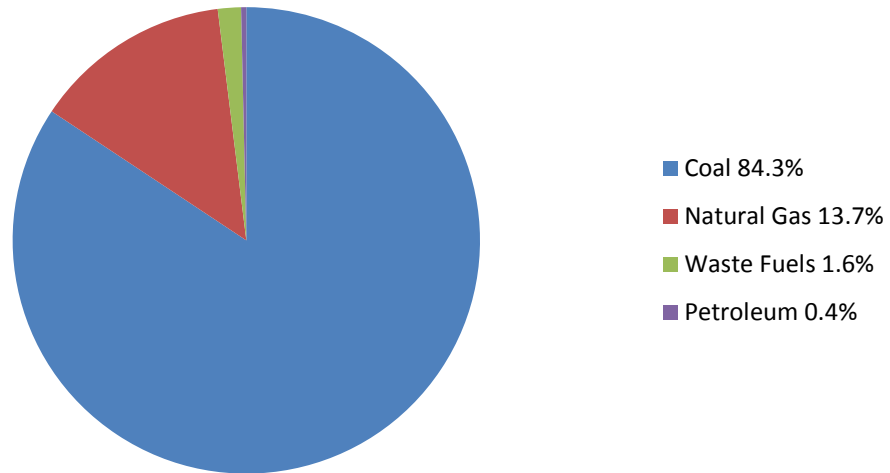
Generation Tables

	Fuel Consumption, MMBTUs	Percent of Total		Net Electric Power Generated, MWh	Percent of Total	
<b>Non-renewable sources</b>						
Coal	6,594,262	83.7%	82.5%	339,656	85.7%	84.3%
Natural Gas	1,256,736	15.9%	15.7%	55,217	13.9%	13.7%
Petroleum	30,943	0.4%	0.4%	1,437	0.4%	0.4%
Nuclear						
Other						
<b>Non-renewable total</b>	<b>7,881,941</b>	<b>100.0%</b>	<b>98.6%</b>	<b>396,310</b>	<b>100.0%</b>	<b>98.4%</b>
<b>Renewable sources</b>						
Biomass						
Hydroelectric						
Landfill Gas						
Solar						
Waste Fuels	115,764	100.0%	1.4%	6,449	100.0%	1.6%
Wind						
Wood						
<b>Renewable total</b>	<b>115,764</b>	<b>100.0%</b>	<b>1.4%</b>	<b>6,449</b>	<b>100.0%</b>	<b>1.6%</b>
<b>Grand total</b>	<b>7,997,705</b>		<b>100.0%</b>	<b>402,759</b>		<b>100.0%</b>

Fuel Type	Physical Units	Number of Units
Anthracite Coal and Bituminous Coal	Short Tons	21,836
Sub-bituminous Coal	Short Tons	351,518
Natural Gas	MCf	1,256,736
Distillate Fuel Oil	Barrels	5,335
Tire-derived Fuels	Short Tons	4,702



### Net Generation by Fuel Type, 2011 for Lake Road





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Power Plant Nameplate information for Lake Road

<b>Plant Name</b>	<b>County Location</b>	<b>Generator</b>	<b>Generator Type</b>	<b>Generator Status</b>	<b>Nameplate Capacity (MW)</b>
<i>Lake Road</i>		<i>All Operating Generators</i>			<i>1,093.2</i>
Lake Road	Buchanan	5	Combustion (Gas) Turbine (includes jet engine design)	Operating - in service	340.0
Lake Road	Buchanan	6	Combustion (Gas) Turbine (includes jet engine design)	Operating - in service	75.6
Lake Road	Buchanan	7	Combustion (Gas) Turbine (includes jet engine design)	Operating - in service	75.6
Lake Road	Buchanan	1	Steam Turbine, including nuclear, geothermal and solar steam (does not include combined cycle)	Operating - in service	92.0
Lake Road	Buchanan	2	Steam Turbine, including nuclear, geothermal and solar steam (does not include combined cycle)	Operating - in service	100.0
Lake Road	Buchanan	3	Steam Turbine, including nuclear, geothermal and solar steam (does not include combined cycle)	Operating - in service	50.0
Lake Road	Buchanan	4	Steam Turbine, including nuclear, geothermal and solar steam (does not include combined cycle)	Operating - in service	360.0



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Emissions from Electricity Generated in 2011: Lake Road

	<b>CO2 Equivalent (TONS)</b>	<b>Carbon Dioxide (CO2) (TONS)</b>	<b>Methane (CH4) (TONS)</b>	<b>Nitrogen Dioxide (NO2) (TONS)</b>
Lake Road	25,630,070	3,162,339	342,117	49,301

	<b>Sulfur Dioxide (SO2) (TONS)</b>	<b>Annual Nitrogen Oxide (NOx) (TONS)</b>	<b>Summer Nitrogen Oxide (NOx) (TONS)</b>
Lake Road	3,925	0.0096	0.0093

Identified Flue Gas Desulfurization (FGD) controls installed on Lake Road power plant

<b>Plant</b>	<b>Control Equipment</b>	<b>Sorbent Type</b>
	No FGD Controls Installed	

Identified Flue Gas Particulate (FGP) controls installed on Lake Road power plant

<b>Plant</b>	<b>Control Equipment</b>
Lake Road	Electrostatic precipitator, cold side, with flue gas conditioning
Lake Road	Electrostatic precipitator, cold side, without flue gas conditioning



## Missouri Department of Natural Resources

### **Notes:**

Generation, emissions and pollution control data include power plants owned by the utility and located in Missouri.

Emissions data calculated by Missouri Department of Natural Resources, Division of Energy, from EIA Fuel Consumption Data

Fuel Consumption and Generation Data from United States Energy Information Administration, Form 923, United States Department of Energy  
<http://www.eia.gov/electricity/data/eia923>

Pollution control data (FGD and FGP equipment) from United States Energy Information Administration, Form 860, United States Department of Energy  
<http://www.eia.gov/electricity/data/eia860/index.html>

Emissions factors for fuel-based generation from United States Environmental Protection Agency "Emission Factors for Greenhouse Gas Inventories", November 7, 2011,  
<http://www.epa.gov/climateleadership/documents/emission-factors.pdf>